

Claims

1. A compressor machine comprising two rotors rotating in opposite directions, which are fitted to two parallel, spaced apart shafts mounted in a housing, one of the shafts being driven directly and the other by intermeshing
5 toothed gears mounted on the shafts, characterized in that the housing includes two radial walls which are configured in one piece with each other and with a peripheral wall and in which the shafts are mounted and between which the toothed gears are arranged, and a side wall having an opening sealed by a removable lateral cover.
- 10 2. The compressor machine according to claim 1, characterized in that one of the radial walls is a radial outer wall and the other is an intermediate wall which on one side thereof defines together with the radial outer wall a gear chamber receiving the toothed gears and on the other side thereof defines a working chamber receiving the rotors.
- 15 3. The compressor machine according to claim 2, characterized in that the rotors are cantilever-mounted on the shafts.
4. The compressor machine according to claim 2 or 3, characterized in that on the end face facing away from the intermediate wall, the working chamber is sealed by a radial housing cover.
- 20 5. The compressor machine according to claim 2 or 3, characterized in that on the end face facing away from the intermediate wall, the working chamber is sealed by a housing cover having an outlet port formed therein which upon rotation of the rotors is exposed subsequent to a phase of internal compression and is closed by the end face of one of the rotors during an inlet phase.
- 25 6. The compressor machine according to any of claims 2 to 5, characterized in that the housing constitutes a monobloc base body having an opening at its face end facing the cover having a width that is the largest among all axial passages

and bore holes located inside the housing, making them accessible for machining through this opening in one set-up of the base body.

5 7. The compressor machine according to claim 6, characterized in that the intermediate wall for its part has axial through openings for accommodating shaft bearings having a width larger than that of the axial bearing bores in the radial outer wall.

8. The compressor machine according to any of claims 2 to 7, characterized in that a bearing cover plate is applied to the intermediate wall on the side of the rotors.

10 9. The compressor machine according to claim 8, characterized in that the bearing cover plate has recesses for receiving shaft seals.

10. The compressor machine according to any of claims 4 to 9, characterized in that connected to the radial housing cover is a hood enclosing a fan.

15 11. The compressor machine according to any of claims 4 to 9, characterized in that the peripheral wall of the housing is surrounded by a hood defining axial cooling air ducts together with the peripheral wall, the cooling air ducts extending from the end face adjacent to the housing cover up to a fan arranged on a driving shaft on the side of the gear chamber facing away from the working chamber.